

## **CLAIMS**

1. A temperature sensor temperature sensing tube comprised of:

A head section having an outer conoidal hem formed along the circumference at its lower extent, a neck section is formed at the center, and a passage is disposed in the said neck section;

A tube member having a hollow interior section that is contiguous with the said passage and an aperture in its bottom section;

The features of which are: the said head section and the said tube member are forged from a tubular blank into a one-piece, entirely unitary structural component, the said head section outer conoidal hem and neck section are formed as extensions of the said tube member;

2. As mentioned in Claim 1 of the temperature sensor temperature sensing tube of

the invention herein, after the said head section is extended from the said tube member to form the said outer conoidal hem, the upper circumferential edge of the said outer conoidal hem is bent into a U-shape such that it overlaps against the said outer conoidal hem inner conoidal hem, following which the said neck section is formed from the bottom section.

3. As mentioned in Claim 1 of the temperature sensor temperature sensing tube of the invention herein, the said neck section includes a gradually reduced neck base which is larger than and formed upward from the said bottom section and continues extending above into a neck body having an approximately equal tubular diameter.
- 5
4. As mentioned in Claim 1 of the temperature sensor temperature sensing tube of the invention herein, the said passage includes a hole section of a nominally constant inner diameter and a conic hole section of graduated reduction from the bottom towards the top.
- 10 5. As mentioned in Claim 1 of the temperature sensor temperature sensing tube of the invention herein, the said tube member aperture is disposed in a hole mount formed inward at the said bottom section.